

Montana and the Sky

Vol. 33, No. 4

MONTANA AERONAUTICS DIVISION

April, 1982

Glacier Park International Airport

The recently-completed Glacier Park International Airport \$3.1 million facilities serve both Frontier and Republic Airlines. The landing apron and taxiways were finished in 1980, and the terminal building was completed in November, 1981.

The terminal building features wood and natural rock decor, carpeting, large waiting areas equipped with upholstered chairs, a conveyor belt indoor baggage claim, a gift shop, car rentals, the two commercial airline locations, and a large landscaped parking lot. The structure is southwest of the old terminal building, facing west on the runway.

The parking lot is being operated by APCOA, Inc., a firm which has specialized in airport parking since 1949, and currently runs parking concessions at 108 other airports around the country.

The airport was established in 1942 with the construction of three runways. The original terminal was built in 1947. The old terminal building is still being used by the National Weather Service, Customs Service, FAA Airway Facility personnel, and Holman Aviation.



Administrator's Column

★ ★ ★ ★ ★

I attended the AOPA sponsored meeting with Senator Max Baucus, which was held April 14 at Belgrade in Flight Line, Inc.'s hangar. There was a good turnout of pilots and FBOs from throughout Montana.

The purpose of the meeting was for Senator Baucus to receive input from the pilots on the proposed ADAP taxing levels now being considered before Congress. It was clear the group was unanimous in opposing increased general aviation taxes, especially while a surplus in excess of \$3 million still remains uncommitted in the aviation trust fund from the previous ADAP bill which expired in October, 1980.

Strong opposition was voiced against the FAA's proposed "tap" of the trust fund for operations and maintenance. Charles Foster, Director of the new FAA Northwest Mountain Region, was also in attendance and fielded questions from both Senator Baucus and the pilots.

★ ★ ★ ★ ★

The Montana Aeronautics Division will sponsor an FAA Pilot Proficiency Awards Program in Lewistown on June 11, 12 and 13, 1982. The program will consist of two ground school sessions and three hours of dual flight instruction. The Aeronautics Division will provide eight flight instructors, and we will limit the attendance to 32 pilot participants. Mick Wilson, FAA Accident Prevention Specialist, and Jack Van De Riet will provide the ground school instruction.

Upon completion, each pilot participant will have met the requirement of Phase I of the FAA Pilot Proficiency Awards Program and will receive their Wings award.

Willy Rimby has advised me that pilots will be welcome to camp near their airplanes if they should desire to do so. Otherwise, transportation to and from motels will be provided.

More detailed information and an application to attend will be mailed to all Montana registered pilots at a later date.

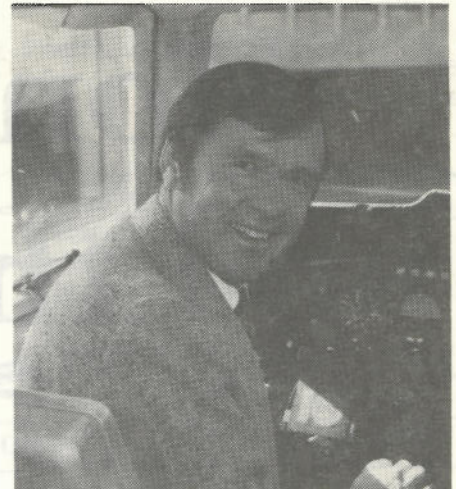
★ ★ ★ ★ ★

Larry Funk Awarded Scholarship

The Montana Aeronautics Division recently awarded a \$250 scholarship to Larry Funk. This award is given to the person in each graduating class from Helena Vo-Tech's combined Airframe and

Powerplant curriculum who maintained the highest grade point average. This scholarship is applied toward a set of tools.

Larry is currently working for Stene Aviation in Polson, Montana. CONGRATULATIONS, LARRY!



Montana and the Sky
USPS 359 860
DEPARTMENT OF COMMERCE
Ted Schwinden, Governor
Gary Buchanan, Director

Official Monthly Publication
of the
AERONAUTICS DIVISION
Phone 449-2506
Box 5178

Helena, Montana 59604
Michael D. Ferguson
Administrator

AERONAUTICS BOARD
Herb Sammons, Chairman
Richard O'Brien, Vice Chairman
Maurice Sandmeyer, Secretary
Bruce Vanica, Member
James McLean, Member
Robert N. Miller, Member
C. R. Ugrin, Member

MONTANA AND THE SKY is
published monthly in the interest of
aviation in the State of Montana.
Second-Class postage paid at
Helena, Montana 59604
Subscription \$2.00 per year
Editor: Diane L. DeRosier



Operational Safety Checklist For the General Aviation Airport

To promote safety at general aviation airports, especially the smaller ones that have minimum equipment and a limited number of personnel, here is a suggested list of some of the more important items which are often overlooked and can result in damage to aircraft or injury to people.

This list is by no means all inclusive, but should provide a basis for you to make a good safety check of your airport. You may never know how many accidents you will prevent, but you will be able to say that you took precautions to make your airport as safe as possible, and that you eliminated known hazards which were brought to your attention.

The following list is broken down into major hazard areas. Inspect your facility daily, weekly or as often as conditions require. Safe airports go a long way toward the prevention of aircraft accidents.

A. RAMP/APRON—PARKING AREAS:

(1) Unsealed pavement cracks, weak or failing pavement, buildup of shoulders causing entrapment of water, poor drainage, and growth of vegetation.

(2) Free of obstructions such as blocks, chocks, loose gravel, baggage carts, etc.

(3) Adequate parking and tie-down areas are provided, are well clear of taxiways and are prominently marked.

(4) Deadlines are provided for spectator areas, passenger loading and unloading, cargo handling, etc.

(5) Fuel trucks and other airport vehicles are parked in specified areas away from aircraft.

(6) No unauthorized vehicles permitted on ramp or apron.

(7) "No Smoking" signs are prominently displayed in all areas where aircraft are being fueled.

(8) Fire bottles are provided at apron and/or ramp and are in good working condition.

(9) Directional signs are provided to direct aircraft.

(10) Yellow center lines are provided.

(11) Flood lights, power outlets and grounding rods in good condition.

B. TAXIWAYS:

(1) Unsealed pavement cracks, weak or failing pavement, build-up or erosion of shoulders, poor drainage, etc.

(2) Free of weeds or other obstructions.

(3) Shoulders are firm, marked as necessary for easy reference, no washouts, etc.

(4) Center (yellow) line is provided and is in good condition.

(5) Hold line is provided and is clearly visible. No unauthorized vehicles and no livestock permitted on taxiways.

(6) Necessary directional signs are provided and are so located as to be well clear of taxi areas.

(7) Delineators and/or lights are provided and are in good order.

C. RUNWAYS:

(1) Runway lights and markers are clearly visible, are operated at correct brilliance, properly levelled and oriented, equipped with usable lamps of correct wattage, clear and clean lenses in runway lights, clean green lenses in threshold lights, unobstructed by vegetation.

(2) Threshold properly marked and lighted.

(3) Runway numbers are in good condition (hard surface).

* (4) End of runways flush with surrounding area (no lip).

* (6) Overrun areas in good condition.

* (6) Shoulders firm, no washouts, no holes or ditches and clearly marked.

(7) Center line (white) in good condition.

(8) Approach areas clear of obstructions. It should be noted whether views of ends of other runways are obstructed by vegetation,

trees, terrain or other obstructions, and whether unauthorized vehicles or livestock have access to the runways or airfield.

(9) Procedures for removal of disabled aircraft from runways available at office.

*NOTE: Items (4), (5) and (6). Unsealed pavement cracks, weak or failing pavement, poor drainage, build-up or erosion of shoulders, obstructing shoulders, etc., should be noted.

D. FUELING FACILITIES:

(1) Area is clearly defined and is located away from aircraft parking area.

(2) Pumps are placarded as to octane and/or fuel grade.

(3) Grounding means provided for all refueling operations.

(4) Fire bottles are provided and are in good condition.

(5) Fuel hose and nozzle units are stored in clean area for protection from weather and contamination.

(6) Filters are checked regularly and recorded.

(7) Tanks are checked for water/contamination and recorded.

(8) Locks are provided and used on fuel tank filler caps to avoid possibility of sabotage.

(9) Fuel tank vents are checked.

(10) Fueling area is kept clean, free of debris, etc.

(11) Rags are stored in closed containers.

(12) Oil is kept in storage bin or closet.

(13) Oil cans are kept in drum or container.

(14) "No Smoking" signs posted in area.

(15) Step ladder is provided, properly stored, clean and in good repair.

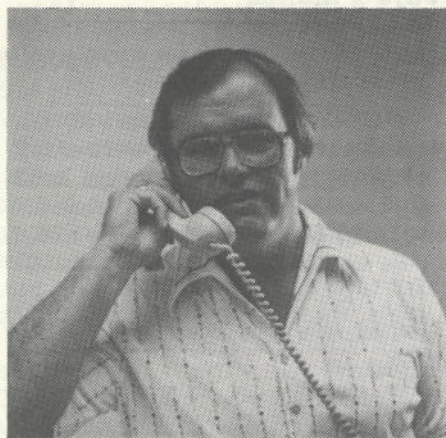
E. BUILDING AREA(S): HANGARS, SHOPS, ETC.:

(1) Clean—free of debris, junk, oil cans, used aircraft parts of no value, old batteries, tires, etc.

(2) Fire protection. Adequate number of fire bottles in good operational condition and with dates of service record available. Fire and rescue equipment and first-aid and emergency services.

Continued on page 6.

Your Comments Please



By: David C. Kneedler, Chief
Airport/Airways Bureau

Elliott Field, east of Missoula, (also known as Rock Creek Airport) has been selected as one of four "test bed" airports nationwide for installation of a prototype airport marking system for unpaved runways. The system being tested was developed at the Federal Aviation Administration's Technical Center in Atlantic City, New Jersey, by the FAA and several state aeronautics departments.

Through the years, a wide range of runway marking devices have been tried; fiberglass cones, wood panels, 55 gallon drums, old tires, flush concrete markers, stones, etc., all leaving something or other to be desired. This new experimental system is an attempt to improve on the various existing systems and, if successful, would have the added potential benefit of standardizing unpaved airport marking systems throughout the nation.

However, to be successful, we must have your comments and/or suggestions for improvement. Those of you

familiar with Elliott Field are aware that we have had fiberglass cone runway markers on the airport for a number of years. Those markers will be left in place for a length of time after installation of the experimental system has been completed to allow for a comparison of the two. The cones will eventually be removed for the remainder of the three-year test period.

This innovative system contains some new and therefore unfamiliar components which will be described and discussed in subsequent issues of Montana and the Sky. Future issues will also contain complete diagrams of the total system as installed, along with a questionnaire which we hope will be completed and forwarded to us by all persons to have used or seen this system. We need your help and input.

New Slide Show On Weather

A recently-completed slide presentation, "On Weather" is available through the Montana Aeronautics Division. The slide show is unique in that it is the first of its kind to show weather systems realistically, as they appear to the pilot in the cockpit. It's a cooperative effort by the FAA, the General Aviation Manufacturers Association, and the National Weather Service.

The show consists of four parts: (1) "Signs and Hazards of Aviation Weather," (2) "Frontal Systems," (3) "Inflight Icing," and (4) "Typical Weather Penetration Scenarios." The presentation contains 386 slides from all over the world.

To increase your knowledge of aviation weather, contact the Montana Aeronautics Division, Film Library, P.O. Box 5178, Helena, MT 59604.

Congratulations! FAA Certificates Issued Recently to Pilots

PRIVATE

Rose, Richard M., Billings
Ferguson, Douglas G., Big Timber
Martenson, Chris C., Miles City
Hanks, Daniel L., Wolf Point
Nobles, Mark A., Billings
Swanson, Leroy J., Lewistown
Lloyd, Harvey, Kalispell
Misevic, Donald, Missoula
Hartung, Daniel, Moiese
Manchester, Dale, Missoula
Driscoll, Ralph, Butte
Whaley, Donald, Kalispell
Pehlke, Tom, Bozeman
Leonard, Dwight, Helena
Emond, Dusty, Malta
Rose, Steve C., Big Sandy
Hinch, Marsha, Choteau
McNutt, Walter, Choteau
McAlpine, Alan, Cut Bank
Dawson, George, Boulder
Bos, Bernard, Helena
Meadors, Robert, Great Falls

COMMERCIAL

Nobles, Mark A., Billings
Nelson, Gerald, Bllng., (CA & CRH)
Tappan, Michael, Sunburst
Wood, Patricia, Loma
Mamuzich, Mark, Conrad
LaRowe, James, Circle

INSTRUMENT

Herriford, Rochard R., Gardiner
Neafus, John E., Billings
Pederson, Roland S., Circle
Nobles, Mark A., Billings
Brand, Joseph E., Great Falls
Hunt, Charles, Great Falls

ATP

Munro, Glen F., Butte
Plett, John V., Billings

MULTIENGINE

Robison, Gary S., Billings

MECHANIC- POWERPLANT

Warren, Michael R., Billings

Aerobatic Instruction Offered



Dennis Giulio and his Cessna 152 Aerobat.

Aerobatic instruction is now being offered in Helena, Great Falls, Butte, and surrounding areas by Dennis Giulio. Dennis lives in Boulder, and has his Cessna 152 Aerobat based in Helena.

He learned to fly in 1967 in Virginia, received his basic aerobatic training from Al Newby in 1979, and later received advanced training from William Stone in Portland, Oregon. Dennis has received his multi-engine, instrument and instructor ratings in Montana. In addition, he has completed 257 parachute jumps and, in 1979, built a gyrocopter and put 120 hours on the aircraft.

The maneuvers Dennis teaches are loops, aileron rolls, snap rolls, cuban eights, wing-overs, split-S's and precision spins.

To sum Aerobatics up in one word, Dennis states this type flying is confidence building — or the ability to control and orient one's self through every attitude through which the airplane can be flown.

Dennis can be reached at home at 225-3644 after 9 p.m., or at P.O. Box 516, Boulder, MT 59632; or messages can be left for him at Capital Aero, 442-6940 from 8 a.m. to 5 p.m. After having flown with Dennis and experiencing loops, aileron rolls and snap rolls, I strongly urge you to contact him. What a thrill!



CALENDAR

June 13 - Flying Farmers Fly-In, Langhus Ranch, Big Timber.

June 14 to 25 - Aerospace Teacher Workshop, Montana State University, Bozeman

June 14 to 25 - Aerospace Teacher Workshop, Carroll College, Helena.

June 14 to July 1 - Aerospace Teacher Workshop, University of Montana, at Kalispell.

June 17 to 19 and June 24 to 26 - Aerospace Teacher Workshop, Eastern Montana College, at Great Falls.

June 21 to July 2 - Aerospace Teacher Workshop, Eastern Montana College, Billings.

June 22 to July 10 - Aerospace Teacher Workshop, Montana Tech, Butte.

June 19 - Navigational Aids Training Course, Yogo Inn, Lewistown.

June 28 to July 2 - Aerospace Teacher Workshop, Eastern Montana College, at Glendive.

June 27 - Flying Farmers Fly-In, Willson Ranch, Moore.

July 10 - Stanford Airmarking and Montana Ninety-Nines Statewide Meeting, :30 a.m.

July 11 - Flying Farmers Fly-In, Stanford Ranch, Lloyd.

July 16 to 18 - Fifth Annual Beacon Star Antique Airfield Fly-In, Moore. Sponsored by the Montana Antique Aircraft Association.

July 1 - Missoula County Airport Aviation Day/Open House, Missoula.

July 23 to 25 - Schafer Meadows Fly-In.

July 31 - August 1 - Air Show, Laurel. Sponsored by Laurel JC's and Billings Broadcasters.

September 24 to 28 - Mountain Search Pilot Clinic, Kalispell.

October 9 - Montana Flying Farmers Convention, Sheraton Inn, Great Falls.

Safety Checklist continued from page 3.

(3) All tools, equipment, etc., properly stored.

(4) Paints, oils, etc., kept in separate area, preferably fireproof.

(5) "No Smoking" signs properly posted.

(6) "Restricted Area" signs posted.

(7) Exit signs posted.

(8) Buildings numbered legibly.

(9) All rags, etc., in metal containers with lids.

(10) Building provided with locks for security.

(11) Area around buildings clean, free of weeds, junk, etc.

(12) Signs properly posted to identify occupants of building.

F. GENERAL:

(1) Office/lobby or lounge has bulletin board on which is posted the following:

(a) Traffic pattern (taxi and flight).

(b) Airport diagram.

(c) Pertinent NOTAMS for local field.

(d) Useful telephone numbers—for fuel, service, maintenance, FSS, weather, and emergency numbers such as fire, emergency facilities, doctors, hospitals, ambulance, etc.

(e) Wall chart—map and measuring device (if room permits).

(2) Wind and/or traffic direction indicator:

(a) Properly marked and lighted.

(b) Self-aligning for preferential runway during conditions of calm wind or winds of 5 mph or less.

(c) Not more than one wind indicating device.

(d) All hazards adjacent to landing area properly marked and lighted. Boundary lights all working.

(e) Presence and visibility of segmented circle and wind cone.

(3) Condition of turfed or intermediate areas between aprons, taxiways and runways and overruns with regard to proper drainage, open inlets and control of vegetation.

Texas Airport Advisory

Butte's Balloon Flights

Curtis Crippen and Tammy Brothers were awarded "Certificates of Outstanding Educational Achievement" after a flight which followed the course of their balloons sent aloft from Butte on Valentine's Day. Two students and their parents were flown by Fred Hasskamp, Aeronautics Division Supervisor of Safety and Education.

As a follow-up program in the study of the movement of the atmosphere in and around Montana, these students received their cards mailed from over 1,000 miles. Sponsored by the Butte Chamber of Commerce, the cards attached to the balloons were returned from all over the Eastern areas of the United States, with over 300 cards returned.

The originators of the balloon flights were George Groesbeck

and Bob Conklin, with great help from Tom Hitchcock and John Raymond. Tom and John are members of the Butte Chamber of Commerce.

The theme of Butte's Valentine Day launch was "Butte Extends Its Heart To You." Over 3,000 balloons were sent aloft with responses coming within three days from as far as Oklahoma and South Carolina.

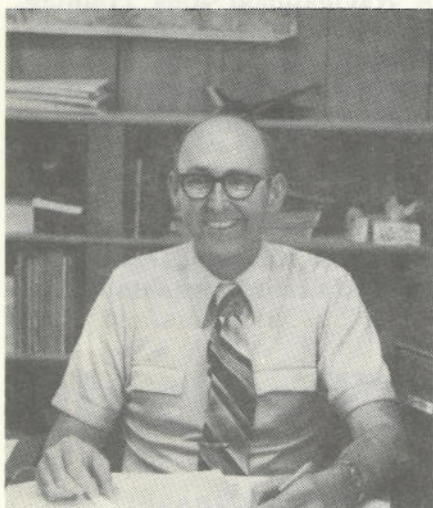
Teachers were exposed to these educational ideas at an Aerospace Workshop taught during the summer at Montana Tech, and sponsored by the Montana Aeronautics Division, which has provided these workshops for more than fifteen teachers at seven different universities and colleges throughout the state.

Photo by: George Groesbeck



Left to right: Cheryle Crippen, Curtis Crippen, Fred Hasskamp, Michell Brothers, Beverly Brothers, Todd Brothers.

Aerospace Teacher Workshops Summer 1982



*By: Fred Hasskamp
Aviation Safety &
Education Supervisor*

If you know a teacher in Montana who is interested in aviation or aerospace, pass along this information. Applications should be made as

soon as possible to the workshop of their choice. Teachers interested in any of these workshops may contact the individual workshop director for the college and request an application form. These courses are for three or four quarter hour credits and are sure to be among the most interesting and rewarding classes available.

The Montana Aeronautics Division is sponsoring Aerospace Education Workshops for teachers at eight locations in Montana.

These courses are for college credit, and the Aeronautics Division will provide \$100 scholarships to each selected Montana teacher who is currently teaching in an elementary or secondary Montana school. Scholarships are paid directly to the college or university to defray the cost of the course. Each workshop is limited to 30 scholarship recipients.

COLLEGE/UNIVERSITY	WORKSHOP LOCATION	DIRECTOR
Carroll College	Helena June 14-25	Patricia Johnson 443-2240
Montana State University	Bozeman June 14-25	Stan Easton 994-4752
University of Montana	Kalispell June 14-July 2	Russ Larson 755-6533
Northern Montana College	Havre June 17-19 & June 24-26	Ron Kologi 265-9094
Eastern Montana College	Great Falls June 21-25	JoAnn Eisenzimer 468-2338
Eastern Montana College	Billings June 21-July 2	Dorothy Curtis 252-7858
Montana Tech	Butte June 22-July 10	Bob Conklin 792-8321
Eastern Montana College	Glendive June 28-July 2	Kristy Bick 256-0043

Fuel Mismanagement

All Too Common
Probable Cause
of Accidents

The National Transportation Safety Board warns general aviation pilots to be alert to an unnecessarily common safety problem: Fuel mismanagement.

As an example of the inherent danger to pilots who fail to manage their fuel properly, the Board cited the crash of a Beech C35 at a Spring Valley, N.Y. airport. Witnesses said the aircraft's engine stopped shortly after takeoff and it plunged to earth, killing the pilot.

The Board's investigation showed that the Beech had been equipped with an unauthorized fuel tank. The fuel selector switch was in the auxiliary tank position, but the tank contained only residual amounts of fuel. Fire consumed the fuel in the left main tank. The right main tank, however, was more than one-half full.

The accident report released by the Board, giving the probable cause of the accident, read:

Pilot in command — inadequate preflight preparation

Pilot in command — mismanagement of fuel

Miscellaneous acts — fuel starvation

The circumstances surrounding fuel exhaustion can vary. But all too often, the problem was easily avoidable. "Properly planning the trip; conservatively weighing forecasted weather and actual conditions; carefully pre-flighting the aircraft; knowing the fuel system and the correct procedures for operating it; logging fuel consumption accurately — all of these can prevent the all too frequent crashes attributed to fuel mismanagement," the Board said.



Darrel Dorsch and his fifth grade class at Jefferson Elementary School took airport tour.

NAV-AIDS Training Course

A Navigational Aids Training Course for electronic technicians maintaining state-owned non-directional radio beacons will be held June 19, 1982 at the Yogo Inn in Lewistown.

This training course is open to other interested parties as well as technicians. Contact Jerry Burrows at Montana Aeronautics Division in Helena for details.

MEMBER

NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS

PURPOSE—"To foster aviation, as an industry, as a mode of transportation for persons and property and as an arm of the national defense; to join with the Federal Government and other groups in research, development, and advancement of aviation; to develop uniform laws and regulations; and to otherwise encourage cooperation and mutual aid among the several states."

April, 1982



P.O. Box 5178

Helena, Montana 59604

Second-Class

**Postage Paid at
Helena, MT 59604**